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EXAMINER

ENGLAND, DAVID E

ART UNIT PAPER NUMBER

2143

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/577,231	Applicant(s) LEWIS, LUNDY	
	Examiner David E. England	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4 and 13-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4, 13-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 4 and 13 – 62 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bhoj et al. (6304892) (hereinafter Bhoj) in further view of Yemini et al. (6249755) (hereinafter Yemini).

4. As per claim 4, as closely interpreted by the Examiner, Bhoj teaches a method of monitoring a state of service supported by a network, wherein the network includes a plurality of network components, wherein the service supports a business process under service level management in association with a service level management domain, the method comprising the steps of:

5. monitoring the one or more select network components to determine the state of the service, (e.g. col. 3, line 62 – col. 4, line 11 & col. 8, lines 3 – 20);

6. monitoring the state of the service to detect a change in the state, (e.g. col. 3, line 62 – col. 4, line 11 & col. 8, lines 3 – 20),

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7. but does not specifically teach when the state of the service changes, determining a cause of the change in the state of the service by performing an action, the action comprising one or more of:

8. invoking a routine to determine an operational characteristic of at least one of the one or more select network components,

9. constructing a database query of to determine the operational characteristic of at least one of the one or more select network components, and

10. requesting a change to one or more parameters of at least one of the one or more select network components,

11. Yemini teaches monitoring the state of the service to detect a change in the state, (e.g., col. 8, lines 17 – 67); and

12. mapping one or more selected network components from the plurality of network components on which the service depends to the service, (e.g., col. 8, lines 17 – 67);

13. when the state of the service changes, determining a cause of the change in the state of the service by performing an action, the action comprising one or more of:

14. invoking a routine to determine an operational characteristic of at least one of the one or more select network components,

15. constructing a database query of to determine the operational characteristic of at least one of the one or more select network components, (e.g., col. 8, lines 17 – 67), and

16. requesting a change to one or more parameters of at least one of the one or more select network components.

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17. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Yemini with Bhoj because mapping out where a problem is occurring in a network can aid in finding a resolution to fix said network problem.

18. Claims 13 – 17, 19 – 35, 37 – 53 and 55 – 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yemini et al. (6249755) (hereinafter Yemini) in view of Bhoj et al. (6304892) (hereinafter Bhoj) in further view of Taghadoss (6052722).

19. As per claim 13, as closely interpreted by the Examiner, Yemini teaches a method for monitoring a service supporting a business process under service level management in association with a service level agreement, wherein the service is monitored by an enterprise management system, wherein the business process depends on at least a portion of a network, the method comprising the steps of:

20. monitoring, at the enterprise management system, a parameter of the associated network component indicating an operational characteristic of the network component that is indicative of a state of the service, wherein the state of the service is indicative of a current level of service relative to an agreed upon level of service in the service level agreement, (e.g., col. 12, lines 22 – 53), but does not specifically teach associating a component of the network to the service supporting the business process under service level management in association with the service level agreement;

21. determining, at the enterprise management system, the state of the service from the parameter of the monitored network component; and

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22. monitoring, at the enterprise management system, the state of the service to provide service level management for the business process that indicates the current level of service relative to the agreed upon level of service.

23. Bhoj more clearly teaches a method for monitoring a service supporting a business process under service level management in association with a service level agreement, wherein the service is monitored by an enterprise management system, wherein the business process depends on at least a portion of a network, the method comprising the steps of:

24. monitoring, at the enterprise management system, the state of the service to provide service level management for the business process that indicates the current level of service relative to the agreed upon level of service, (e.g. col. 3, line 62 – col. 4, line 11 & col. 8, lines 3 – 20). It would have been obvious to one of ordinary skill in the art, at the time the invention was conceived, to combine Bhoj with Yemini because it allows management of the services of the entire data access network system (or part of it) without any one domain having complete access to each of the data service systems of the data access network system. This also allows the data service systems to exchange information about how a service provider is complying with its service level agreements with its customer, outsourcer, or partner. In addition, the arrangement enables the customers of the data access network system to monitor and verify the delivered services against the guarantees offered by their service providers without having complete access to the service provider's system, (e.g., Bhoj, cols. 3 – 4).

25. Taghadoss teaches

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26. associating a component of the network to the service supporting the business process under service level management in association with the service level agreement, (e.g., col. 5, lines 16 – 36);

27. determining, at the enterprise management system, the state of the service from the parameter of the monitored network component, (e.g., col. 5, lines 16 – 36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Taghadoss with the combine system of Yemini and Bhoj because of similar reasons stated above.

28. Referencing claim 27, as closely interpreted by the Examiner, Yemini teaches a system for monitoring a service supporting a business process under service level management in association with a service level agreement, wherein the service is monitored by an enterprise management system, wherein the business process is performable in connection with at least a portion of a network, the system comprising:

29. a monitoring mechanism for monitoring a parameter of the associated network component at the enterprise management system, the parameter indicating an operational characteristic of the network component that is indicative of a state of the service, wherein the state of the service is indicative of a current level of service relative to an agreed upon level of service in the service level agreement, (e.g. col. 2, lines 4 – 46); and

30. a service monitoring mechanism for monitoring, at the service management system, the state of the service supporting the business process to provide service level management of the business process that indicates the current level of service relative to the agreed upon level of service, (e.g. col. 2, lines 4 – 46). Yemini does not specifically teach a mapping mechanism for

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associating a component of the network to the service supporting the business process under service level management in association with the service level agreement;

31. a reasoning mechanism for determining, at the service management system, the state of the service from the parameter of the monitored network component.

32. Bhoj teaches a system for monitoring a service supporting a business process under service level management in association with a service level agreement, wherein the service is monitored by an enterprise management system, wherein the business process is performable in connection with at least a portion of a network, the system comprising:

33. a mapping mechanism for associating a component of the network to the service supporting the business process under service level management in association with the service level agreement, (e.g. col. 3, line 62 – col. 4, line 11 & col. 8, lines 3 – 20). It would have been obvious to one of ordinary skill in the art, at the time the invention was conceived, to combine Bhoj with Yemini because it allows management of the services of the entire data access network system (or part of it) without any one domain having complete access to each of the data service systems of the data access network system. This also allows the data service systems to exchange information about how a service provider is complying with its service level agreements with its customer, outsourcer, or partner. In addition, the arrangement enables the customers of the data access network system to monitor and verify the delivered services against the guarantees offered by their service providers without having complete access to the service provider's system.

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34. Taghadoss teaches a mapping mechanism for associating a component of the network to the service supporting the business process under service level management in association with the service level agreement, (e.g., col. 5, lines 16 – 36);

35. a reasoning mechanism for determining, at the service management system, the state of the service from the parameter of the monitored network component, (e.g., col. 5, lines 16 – 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Taghadoss with the combine system of Yemini and Bhoj because of similar reasons stated above.

36. Referencing claim 28, as closely interpreted by the Examiner, Yemini teaches the mapping mechanism associates a parameter of the service with the parameter of the associated network component, the service parameter comprising a variable having a state which represents an operational characteristic of the service provided by the network, (e.g. col. 2, lines 4 – 46).

37. Referencing claim 29, as closely interpreted by the Examiner, Yemini teaches a value for the service parameter is determined from a value of the parameter of the associated network component, (e.g. col. 8, lines 17 – 67).

38. Referencing claim 30, as closely interpreted by the Examiner, Yemini teaches the reasoning mechanism comprises a rule-based reasoning system for determining the condition of the service teaches, (e.g. col. 2, line 47 – col. 3, line 50).

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39. Referencing claim 31, as closely interpreted by the Examiner, Yemini teaches the reasoning mechanism comprises a model-based reasoning system for determining the condition of the service, (e.g. col. 5, lines 42 – 64).

40. Referencing claim 32, as closely interpreted by the Examiner, Yemini teaches the reasoning mechanism comprises a case-based reasoning system for determining the condition of the service, (e.g. col. 3, line 51 – col. 4, line 27).

41. Referencing claim 33, as closely interpreted by the Examiner, Yemini the reasoning mechanism comprises a state-transition graph reasoning system for determining the condition of the service, (e.g. col. 12, line 54 – col. 13, line 7, “*causality graph*”).

42. Referencing claim 34, as closely interpreted by the Examiner, Yemini teaches the reasoning mechanism comprises a codebook reasoning system for determining the condition of the service, (e.g. col. 9, lines 1 – 30).

43. Referencing claim 35, as closely interpreted by the Examiner, Yemini teaches the reasoning mechanism determines the condition of the service from a mathematical simulation of the service, (e.g. col. 24, line 29 – col. 25, line 8).

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44. Referencing claim 40, as closely interpreted by the Examiner, Yemini teaches the operation invokes a query to a database to determine the operational characteristic of the network component, (e.g. col. 7, lines 9 – 60).

45. Referencing claim 41, as closely interpreted by the Examiner, Yemini teaches the operation invokes a second reasoning mechanism to determine the operational characteristic of the service, (e.g. col.12, line 54 – col. 13, line 7 & col. 16, line 53 – col. 17, line 40).

46. Referencing claim 42, as closely interpreted by the Examiner, Yemini teaches the operation invokes an inspection of the operational characteristic of the network component, (e.g. col.12, line 54 – col. 13, line 7 & col. 16, line 53 – col. 17, line 40).

47. Referencing claim 43, as closely interpreted by the Examiner, Yemini teaches the inference mechanism selects rules from the rule repository and invokes operations to implement the selected rules until the service achieves a desired condition, (e.g. col.12, line 54 – col. 13, line 7 & col. 16, line 53 – col. 17, line 40).

48. Referencing claim 44, as closely interpreted by the Examiner, Yemini teaches the service parameter represents one or more of the following operational characteristics of the service:

49. availability;

50. reliability;

51. usability;

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52. integrity;

53. security;

54. performance;

55. configuration; and

56. status, (e.g. col. 8, lines 17 – 67).

57. Claims 13 – 17, 18 – 26, 37 – 39, 45 – 53 and 55 – 62 are rejected for similar reasons as stated above.

58. Claims 18, 36 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yemini, Bhoj and Taghadoss as applied to claims 13, 27, 35 and 49 above, and in further view of Glitho et al. (6233449) (hereinafter Glitho).

59. As per claim 36, as closely interpreted by the Examiner, Yemini teaches an action being taken when the parameter of the monitored network component crosses a threshold, (e.g. col. 25, lines 9 – 18), but does not specifically teach the use of an agent associated with the monitored network component to generate an alarm. Glitho teaches the use of an agent associated with the monitored network component to generate an alarm, (e.g. col. 7, lines 12 – 45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Glitho with the combine system of Yemini, Bhoj and Taghadoss because utilizing an alarm in a system could alert a user about different fault events from a hardware or software device, giving the user a chance to correct any faults in the system.

60. Claims 18 and 54 are rejected for similar reasons as stated above.

Response to Arguments

61. Applicant's arguments filed 06/15/2006 have been fully considered but they are not persuasive.

62. In the Remarks, Applicant argues in substance that Yemini, Bhoj and Taghadoss do not teach the limitations stated in claims 13 – 62 nor does Glitho cure any of their deficiencies.

63. As to the first argument, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

64. Applicant's arguments with respect to claim 4, has been considered but are moot in view of the new ground(s) of rejection.

Conclusion

65. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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66. a. Ramanathan et al. U.S. Patent No. 6286047 discloses Method and system for automatic discovery of network services.
67. b. Caswell et al. U.S. Patent No. 6336138 discloses Template-driven approach for generating models on network services.

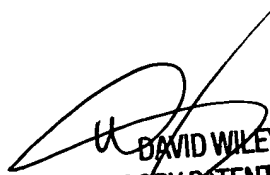
Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. England whose telephone number is 571-272-3912. The examiner can normally be reached on Mon-Thur, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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